

REMARKS

In the June 17, 2003 Office Action, of pending claims 1-40, claims 1-40 are rejected under 35 U.S.C. §112, first paragraph, claims 1-40 are rejected under 35 U.S.C. §112, second paragraph and claims 1-40 are rejected under 35 U.S.C. §§ 102(b) and/or 103(a).

By this Amendment, claims 4 and 5 are canceled and claims 1, 2, 6-8, 18 and 32 are amended, leaving claims 1-3 and 6-40 pending with claims 1, 18 and 32 being independent.

Reconsideration and allowance of the above-identified application are respectfully requested.

Rejections Under 35 U.S.C. §112, first paragraph

Claims 1-40 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter allegedly not described in the specification. Specifically, the Examiner contends that the originally filed application is silent regarding reshaping the cornea without subjecting the cornea to a vacuum.

Applicant submits that this limitation is only recited in independent claim 1 and not independent claims 18 and 32, and therefore claims 18 and 32, and their respective dependent claims satisfy the requirements of §112, first paragraph. Furthermore, this limitation has been deleted from claim 1, and therefore, this rejection no longer applies. Applicant requests that this rejection be withdrawn with respect to all currently pending claims.

Rejections Under 35 U.S.C. §112, second paragraph

Claims 1-40 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Examiner believes that in claims 1, 2, 18 and 32 the antecedent of “it” is unclear. As

noted above, each of these claims has been amended to avoid this rejection. Therefore, Applicant requests that this rejection be withdrawn with respect to all currently pending claims.

Rejections Under 35 U.S.C. §102(b)

Claims 1-3 and 9-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,831,604 to Neeffe. The Examiner alleges that the Neeffe patent discloses all of the elements of these claims.

Applicant submits that the Neeffe patent does not disclose, teach or suggest all of the elements of amended independent claim 1. Specifically, the Neeffe patent does not disclose, teach or suggest heating an exposed internal corneal surface to loosen the molecules therein, thereby softening the cornea into a gelatinous material and reshaping the gelatinous material, so that the exposed internal corneal surface substantially conforms to a predetermined pattern. By heating an exposed internal corneal surface, the cornea will not develop tissue necrosis, which may be possible, if the lens is positioned adjacent the external surface of the cornea.

Additionally, Applicant submits that heating an exposed internal corneal surface as claimed is not obvious in view of the cited prior art, as suggested in the rejection of dependent claim 4.

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatenable over the Neeffe patent in combination with U.S. Patent No. 4,903,695 to Warner et al. The Warner patent is cited as teaching the formation of a flap. In support of this rejection the Examiner alleges that it would have been obvious to combine the Neeffe and Warner patents, so that the Neeffe mold could be applied to the stroma, since this would spare the epithelium and heat the tissue that is actually desired to be recurved, i.e., the stroma.

Applicant submits that there is no disclosure or teaching in any of the cited prior art of heating an exposed corneal surface. According to MPEP §2131.03, to establish *prima facie* obviousness, the prior art must disclose, teach or suggest all of the claim limitations. Therefore, since there is no teaching of heating an exposed corneal surface, the Examiner has failed to establish a case of *prima facie* obviousness.

Additionally, applicant submits that the motivation suggested by the Examiner is not found in the cited prior art and is therefore, improper hindsight. The motivation suggested by the Examiner is found only in the present application. No where in the cited references does it suggest that it would be preferable to heat the stroma rather than any other portion of the cornea.

Therefore, Applicant submits that independent claim 1, and its respective dependent claims 2, 3 and 6-17 are allowable over the cited prior art.

Claims 2, 4-7, 9-14, 17, 18, 20 and 31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Neefe and Warner patents.

As noted above, this combination of references does not render amended independent claim 1 obvious. Additionally, since independent claim 18 recites subject matter substantially, similar to independent claim 1, it is allowable for the reasons stated above. Specifically, independent claim 18 recites positioning a reshaping device adjacent an internal surface of the cornea, so that the reshaping device overlies a portion of the cornea, and heating the reshaping device, which in turn heats the cornea to soften the portion of the cornea that the reshaping device overlies.

Therefore, Applicant submits that independent claims 1 and 18, and their respective dependent claims 2, 3 and 6-17 and 19-31 are allowable over the cited prior art.

Claims 2 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Neeffe and Warner patents and further in view of U.S. Patent No. 4,976,709 to Sand.

Applicant submits that since the Sand patent does not overcome the above deficiencies of the Neeffe and Warner patents, and since claims 2 and 8 are dependent upon claim 1, claims 2 and 8 are allowable for the reasons stated above. Moreover, the Sand patent teaches using a laser to change to shape of the cornea, not to heat a reshaping device that in turn heats the cornea and changes the shape of the cornea.

Claims 2, 14-16, 18 and 28-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Neeffe and Warner patents and further in view of U.S. Patent No. 4,523,594 to Kuznetz.

Applicant submits that since the Kuznetz patent does not overcome the above deficiencies of the Neeffe and Warner patents, claims 2, 14-16, 18 and 28-30 are allowable for the reasons stated above.

Claims 18 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Neeffe and Warner patents and further in view of U.S. Patent No. 5,779,696 to Berry et al.

Applicant submits that since the Berry et al. patent does not overcome the above deficiencies of the Neeffe and Warner patents, claims 18 and 19 are allowable for the reasons stated above.

Claims 32-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Neeffe and Warner patents and further in view of U.S. Patent No. 5,104,957 to Kelman et al. and U.S. Patent No. 5,196,027 to Thompson et al. The Kelman patent is cited as teaching the equivalence of corneal onlays and corneal inlays, and the Thompson patent is cited as teaching forming an onlay with a mold. In support of this rejection, the Examiner contends that it would have been obvious to

form the Thompson onlay using the heated mold of Neefe since any method can be used, and to employ the formed element as an inlay, since they are equivalents, as taught by the Kelman patent.

Applicant submits that this combination of prior art does not disclose, teach or suggest a method, as recited in independent claim 32, including the steps of positioning an inlay adjacent an internal surface of the cornea, positioning a reshaping device having a predetermined first surface adjacent a surface of the inlay, heating the reshaping device, which in turn heats the inlay to soften the inlay, and reshaping the softened portion of the inlay, so that the soften portion of the inlay substantially conforms to the predetermined first surface of the reshaping device.

As stated above, the Neefe patent only teaches heating the exterior of the cornea to change the shape of the cornea and does not teach heating an inlay.

Additionally, Applicant submits that the Kelman patent does not teach or suggest that inlays and onlays are equivalents, just that they can be made each be made from collagen based polymers. Merely because two products can be made from the same type of material does not mean that they are equivalents. For example, the Kelman patent also states that IOLs can be made from collagen based polymers, and IOLs are clearly not equivalents to intracorneal inlays.

Furthermore, the Thompson patent does not teach heating a reshaping device to soften an inlay. In the Thompson patent, a mold is simply used to shape a viscous material that has been spread over the surface of the cornea.

The Examiner contends that the using Neefe mold to form the Thompson inlay is obvious, since any method can be used. Applicant respectfully disagrees. As noted above, claim 32 is a method claim, and therefore the prior art must actually teach or disclose the claimed method. Simply stating that the method is obvious, since any method could be employed, is not proper. To establish

prima facie obviousness, the prior art must disclose, teach or suggest all of the claim limitations. There is clearly no disclosure, teaching or suggestion in the prior art of the step of heating and reshaping an inlay.

Therefore, Applicant submits that independent claim 32 and its dependent claims 33-40 are allowable over the cited prior art.

Claims 38 and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Neeffe, Warner, Thompson and Kelman patents and further in view of the Kuznetz patent.

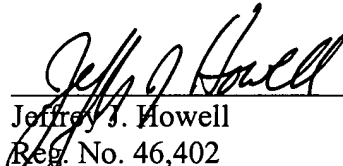
Applicant submits that since the Kuznetz patent does not overcome the above deficiencies of the Neeffe, Warner, Thompson and Kelman patents, claims 38 and 39 are allowable for the reasons stated above.

Claim 40 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the Neeffe, Warner, Thompson and Kelman patents and further in view of the Berry patent

Applicant submits that since the Berry et al. patent does not overcome the above deficiencies of the Neeffe, Warner and Kelman patents, claim 40 is allowable for the reasons stated above.

Prompt and favorable action is solicited.

Respectfully submitted,



Jeffrey J. Howell
Reg. No. 46,402
Attorney for Applicant

Roylance, Abrams, Berdo & Goodman, L.L.P.
1300 19th Street, N.W., Suite 600
Washington, D.C. 20036-1649
(202) 659-9076

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